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EXAMINER	
HOFFMAN, BRANDON S	

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/731,039	MOSKOWITZ ET AL.	
	Examiner	Art Unit	
	Brandon Hoffman	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-68* is/are rejected.

7)☒ Claim(s) *11,13,16 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Applicant is given a TWO MONTH time period to submit a drawing in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

Specification

2. The abstract of the disclosure is objected to because on line 2, two periods (..) end the sentence. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

- The section under CROSS-REFERENCE TO RELATED APPLICANTIONS on pages 1 and 2 is objected to because of its improper claim for priority. The cases listed are not labeled as continuations, continuations-in-part, etc. Applicant merely recites a plurality of pending applications that contain no relation to the instant application.
- On page 22, line 20, applicant is comparing "digital video" to "digital video." Please rewrite to compare –digital video– to –digital audio–.

Claims 11, 13, 16, and 30 are objected to because of the following informalities:

- Regarding claim 11, line 8, "using a public key is used to" should be –using a public key to–.
- Regarding claim 16, line 9, "resulting the" should be –resulting in the–.
- Regarding claim 30, line 6, "dependent on the a" should be –dependent on a–.

Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 13 states the method of claim 1, *further comprising* the step of... Claim 1 embeds data first, then scrambles the data. Claim 13 scrambles the data first, then embeds the data. By doing so, claim 13 is not further limiting, but instead, performing a new method.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the signal quality levels" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the predetermined signal quality level" in line 22. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States, or
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8, 12, 13, 66, and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Allen (U.S. Patent No. 5,418,713).

Regarding claims 1 and 66, Allen teaches a method/system for securing a data object, comprising:

- Providing a data object comprising digital data and file format information (fig. 7);
- Embedding independent data into the data object (col. 7, lines 25-33); and
- Scrambling the data object to degrade the data object to a predetermined signal quality level (col. 5, lines 58-65).

Regarding claims 2 and 5, Allen teaches the step of performing the steps of embedding and scrambling until a predetermined condition is met (col. 7, line 64 through col. 8, line 14).

Regarding claims 3 and 6, Allen teaches the predetermined condition comprises reaching a desired signal quality level of the data object (col. 8, lines 3-11).

Regarding claims 4 and 67, Allen teaches the steps of:

- Descrambling the data object to upgrade the data object to a predetermined signal quality level (col. 6, line 61 through col. 7, line 5); and
- Decoding the embedded independent data (col. 11, lines 21-28).

Regarding claim 7, Allen teaches the predetermined signal quality level is selected from the group consisting of telephone quality, radio quality, MP3 quality, and CD quality (col. 5, line 58 through col. 6, line 10).

Regarding claim 8, Allen teaches the predetermined signal quality level is selected from the group consisting of NTSC quality, QuickTime quality, Macrovision quality, satellite quality, high definition quality, and DVD quality (col. 6, lines 11-15).

Regarding claim 12, Allen teaches the data object comprises at least one of digital music, video, and at least one image (fig. 7, ref. num 253-255).

Regarding claim 13, Allen teaches the step of scrambling the independent data before the embedding step so that the embedding step embeds the scrambled independent data into the data object (col. 7, lines 25-33).

Claims 60 and 63-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Harada et al. (U.S. Patent No. 6,687,683).

Regarding claim 60, Harada et al. teaches a method for bandwidth allocation, comprising:

- Presenting a plurality of data objects to a user, each data object having a security application (fig. 2, ref. num 130 and 140);
- Linking at least a first data object to at least one second data object (col. 8, lines 33-43);
- Wherein a characteristic of the first data object causes a change in the second data object (col. 25, lines 54-64).

Regarding claim 63, Harada et al. teaches a signal quality level of the second data object is increased with a predetermined key (fig. 6, ref. num S312).

Regarding claim 64, Harada et al. teaches the predetermined key comprises at least one session key (col. 15, lines 1-5).

Regarding claim 65, Harada et al. teaches at least one session key adjusts a payment for the second data object (col. 15, lines 6-14).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 9-11 and 21-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (U.S. Patent No. 5,418,713) in view of Wasilewski et al. (U.S. Patent No. 5,870,474).

Regarding claim 9, Allen teaches all the limitations of claim 1, above. However, Allen does not teach the independent data comprises authenticatable data.

Wasilewski et al. teaches the independent data comprises authenticatable data (col. 9, lines 23-29).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the independent data comprising authenticatable data, as taught by Wasilewski et al., to the method of Allen. It would have been obvious to one of ordinary skill in the art to combine the independent data comprising authenticatable data, as taught by

Wasilewski et al., to the method of Allen because some form of copy protection would be desirable in a system were data is transmitted over a communications medium.

Regarding claim 10, the Examiner takes Official Notice that a robust open watermark would be an obvious choice for authenticatable data. Watermarking is very common in the communication of data; by using a watermark that is open, it is easy to be seen by any person wishing to access the data – therefore informing the person upfront of the copy prevention wanting to be obtained; by using a watermark that is robust, the person will find it very difficult to remove the watermarking feature if the person were to choose to cheat the copyright holder. The combination of a robust open watermark provides an easy to acknowledge, but very difficult to break, method of protecting copy written data.

Regarding claim 11, Allen teaches all the limitations of claims 1 and 4, above. However, Allen does not teach the step of decoding the embedded independent data comprises using a public key is used to decode the independent data.

Wasilewski et al. teaches the step of decoding the embedded data using a public key (col. 8, lines 6-7). Although this shows encoding using a public key, it would have been just as easy to encode with a private key, whereby decoding with a public key.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the step of decoding the independent data comprises using a public

key, as taught by Wasilewski et al., with the method of Allen. It would have been obvious to one of ordinary skill in the art to combine the step of decoding the independent data comprises using a public key, as taught by Wasilewski et al., to the method of Allen because some form of copy protection would be desirable in a communications system. By using a public key to decode the data, a corresponding private key would encode the data, thereby creating a public key cryptographic system to provide security of data over transmission.

Regarding claim 21, Allen teaches a method for distributing a data object, comprising:

- Providing a data object comprising digital data and file format information (fig. 7); and
- Manipulating the file format information based on at least one signal characteristic of the data object (col. 5, lines 58-65).

Allen does not teach encoding independent authentication data into the data object.

Wasilewski et al. teaches encoding independent authentication data into the data object (col. 9, lines 23-29).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine encoding independent authentication data into the data object, as taught by Wasilewski et al., to the method of Allen. It would have been obvious to combine encoding independent authentication data into the data object, as taught by Wasilewski et al., to the method of Allen because some form of copy protection would be desirable in a system

were data is transmitted over a communications medium. Authenticatable data would provide the means of determining if the data is a legitimate version of the original.

Regarding claim 22, the combination of Allen in view of Wasilewski et al. teaches the independent authentication data is steganographically encoded into the data object (see col. 9, lines 30-46 of Wasilewski et al., the MAC is appended to the encrypted control word, which is used to compare with the hashed value of the encrypted control word and the multi-session key. The MAC is sent unencrypted, i.e., in the clear, and therefore would stand to reason as being steganographically encoded into the entire data object).

Regarding claim 23, the Examiner takes Official Notice that a robust open watermark would be an obvious choice for authenticatable data. Watermarking is very common in the communication of data; by using a watermark that is open, it is easy to be seen by any person wishing to access the data – therefore informing the person upfront of the copy prevention wanting to be obtained; by using a watermark that is robust, the person will find it very difficult to remove the watermarking feature if the person were to choose to cheat the copyright holder. The combination of a robust open watermark provides an easy to acknowledge, but very difficult to break, method of protecting copy written data.

Regarding claim 24, the combination of Allen in view of Wasilewski et al. teaches at least one signal characteristic of the data object comprises file format information (see col. 14, lines 14-30 of Allen).

Regarding claims 25 and 26, the combination of Allen in view of Wasilewski et al. teaches the step of generating at least one cryptographic key based on a result of the manipulation of the file format information comprises:

- Selecting at least one of a plurality of signal characteristics of the data format (see col. 5, lines 58-65 of Allen); and
- Ciphering the results of the order of steps of signal characteristic selection (see fig. 3, ref. num 152 of Wasilewski et al.).

Regarding claims 27 and 28, the combination of Allen in view of Wasilewski et al. teaches the steps of encoding independent authentication data into the data object and manipulating the file format information based on at least one signal characteristic of the data object comprise multiple step encoding and manipulation (see fig. 3A of Wasilewski et al.), and an order of the multiple steps is ciphered to generate a predetermined key (see fig. 3, ref. num 152 of Wasilewski et al.).

Regarding claim 29, the combination of Allen in view of Wasilewski et al. teaches generating at least one cryptographic key having a logical relationship with the manipulation of the file format information and the steganographic encoding method (see col. 22, lines 53-57 of Wasilewski et al.).

Regarding claim 30, the combination of Allen in view of Wasilewski et al. teaches:

- Generating an authorization key that is dependent on a public key and a private key (see fig. 3B, ref. num 1022 and SP PRIVATE KEY of Wasilewski et al.),
- Wherein the authorization key is further dependent on at least one of a time, a channel, and an object (see col. 11, lines 34-50 of Wasilewski et al., a signed message is know to have time stamp information included in it).

Regarding claim 31, Allen teaches a method for distributing data signals, comprising:

- Embedding independent data into a data object (col. 7, lines 25-33);
- Scrambling the data object (col. 5, lines 58-65);
- Distributing the scrambled data object (fig. 1, ref. num 50 to 70); and
- Descrambling the scrambled data object (col. 6, line 61 through col. 7, line 5).

Allen does not teach distributing at least one predetermined key that enables access to the data object and descrambling with the predetermined key.

Wasilewski et al. teaches distributing at least one predetermined key that enables access to the data object (fig. 3, ref. num 400) and descrambling with the predetermined key (col. 22, lines 49-60).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine distributing at least one predetermined key that enables access to the

data object and descrambling with the predetermined key, as taught by Wasilewski et al., to the method of Allen. It would have been obvious to combine distributing at least one predetermined key that enables access to the data object and descrambling with the predetermined key, as taught by Wasilewski et al., to the method of Allen because key based cryptography provides a secure means of transmitting data to only the intended recipient.

Regarding claim 32, the combination of Allen in view of Wasilewski et al. teaches the independent data comprises payment information (see col. 14, lines 5-13 of Allen).

Regarding claim 33, the combination of Allen in view of Wasilewski et al. teaches the independent data comprises authentication information (see col. 9, lines 23-29 of Wasilewski et al.).

Regarding claim 34, the combination of Allen in view of Wasilewski et al. teaches the independent data comprises a one-way hash (see col. 9, lines 35-40 of Wasilewski et al.).

Regarding claim 35, the combination of Allen in view of Wasilewski et al. teaches the independent data comprises a digital signature (see fig. 3, ref. num 300 of Wasilewski et al.).

Regarding claim 36, the combination of Allen in view of Wasilewski et al. teaches the independent data comprises a time stamp (see col. 14, lines 48-51 of Wasilewski et al.).

Regarding claims 37 and 38, the combination of Allen in view of Wasilewski et al. teaches the steps of embedding independent data into a data object and scrambling the data object each has a logical relationship with the generation of the predetermined key and a communications channel for which the data signal is being prepared (see col. 22, lines 53-57 of Wasilewski et al.).

Regarding claim 39, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises:

- Initiating the transmission of a recipient public key from an intended recipient of the data object to a sender of the data object (see fig. 3B, ref. num 1022 of Wasilewski et al.); and
- Initiating the transmission of a sender session key from the sender to the recipient to initiate descrambling of the embedded independent data (see fig. 3, ref. num 30 of Wasilewski et al.).

Regarding claim 40, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises:

- Initiating a session key-based exchange between a sender and receiver (see fig. 3, ref. num 30 of Wasilewski et al.);
- Wherein the session key is dependent on at least one of a channel, a time, and a data object (see col. 11, lines 34-50 of Wasilewski et al., a signed message is know to have time stamp information included in it).

Regarding claim 41, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises initiating a session key-based exchange between a sender and a receiver that is a timing based timing mechanism (see fig. 3, ref. num 30 and 152 of Wasilewski et al., the MUX is time based multiplexing).

Regarding claim 42, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises initiating a pooling of similar session keys (see fig. 3, ref. num 30 of Wasilewski et al.).

Regarding claim 43, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises logically associating a signal quality with a predetermined estimation of a bandwidth requirement for the session (see col. 5, lines 59-62 of Allen).

Regarding claim 44, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises logically associating a signal quality with a bandwidth allocation model (see col. 5, lines 59-62 of Wasilewski et al.).

Regarding claim 45, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises logically associating a signal quality with a signal quality parameter (see col. 3, lines 43-53 of Allen).

Regarding claim 46, the combination of Allen in view of Wasilewski et al. teaches the step of descrambling the scrambled data object comprises updating a signal quality of the data object based on an approval of the session keys by the originating data signal server (see col. 6, line 61 through col. 7, line 5 of Allen).

Regarding claim 47, the combination of Allen in view of Wasilewski et al. teaches the step of scrambling the data object comprises manipulating file format information of the data object (see col. 5, lines 58-65 of Allen).

Regarding claim 48, the combination of Allen in view of Wasilewski et al. teaches the step of scrambling the data object comprises scrambling the data object with a cryptographic cipher (see fig. 3, ref. num 154 of Wasilewski et al.).

Claims 14-20, 49-54, 57-59, 61, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (U.S. Patent No. 6,687,683) in view of Allen (U.S. Patent No. 5,418,713).

Regarding claims 14 and 68, Harada et al. teaches a method/system for distributing a data signal, comprising:

- Selecting a first scrambling technique to apply to the data signal (col. 8, lines 33-43);
- Scrambling the data signal using the first scrambling technique, resulting in a first-level degraded data signal (col. 8, lines 33-43); and

- Creating a first descrambling key for the first-level degraded data signal based on the first scrambling technique (col. 8, lines 33-43);
- Selecting a second scrambling technique to apply to the first-level degraded data signal (col. 8, lines 33-43);
- Scrambling the first-level degraded data signal using a second scrambling technique, resulting in a second-level degraded data signal (col. 8, lines 33-43); and
- Creating a second descrambling key for the second-level degraded data signal based on the second scrambling technique (col. 8, lines 33-43).

Harada et al. does not teach providing a data signal comprising digital data and file format information.

Allen teaches providing a data signal comprising digital data and file format information (fig. 7).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine providing a data signal comprising digital data and file format information, as taught by Allen, to the method of Harada et al. It would have been obvious to combine providing a data signal comprising digital data and file format information, as taught by Allen, to the method of Harada et al. because the file format information tells the system what types of data are contained in the file, thereby allowing the system to determine which methods would best be utilized.

Regarding claim 15, the combination of Harada et al. in view of Allen teaches:

- Associating a first payment level with the data signal (see col. 14, lines 24-46 of Harada et al.);
- Associating a second payment level with the first-level degraded data signal (see col. 14, lines 9-23 of Harada et al.); and
- Associating a third payment level with the second-level degraded data signal (see col. 13, line 63 through col. 14, line 8 of Harada et al.).

Regarding claim 16, the combination of Harada et al. in view of Allen teaches:

- Selecting a payment level (see fig. 6, ref. num S302 and S308 of Harada et al.); and
- Applying at least one of the descrambling keys to the second-level degraded data signal, resulting the associated data signal (see fig. 6, ref. num S306 and S312 of Harada et al.).

Regarding claim 17, the combination of Harada et al. in view of Allen teaches at least one of the first scrambling technique and the second scrambling technique comprises manipulation of the file format information (see col. 5, lines 58-65 of Allen).

Regarding claim 18, the combination of Harada et al. in view of Allen teaches at least one of the first scrambling technique and the second scrambling technique comprises a cryptographic cipher (see col. 14, lines 17-18 and 41-42 of Harada et al.).

Regarding claim 19, the combination of Harada et al. in view of Allen teaches the signal quality levels are selected from the group consisting of CD quality, MP3 quality, radio quality, and telephone quality (see col. 5, line 58 through col. 6, line 10 of Allen).

Regarding claim 20, the combination of Harada et al. in view of Allen teaches the predetermined signal quality level is selected from the group consisting of NTSC quality, QuickTime quality, Macrovision quality, satellite quality, and DVD quality (see col. 6, lines 11-15 of Allen).

Regarding claim 49, Harada et al. teaches a method for data signal distribution, comprising:

- Applying a steganographic technique for embedding independent data into the data signal (fig. 5, ref. num 24 and 28);
- Applying a scrambling technique selected from the group consisting of partial encryption (fig. 4); and
- Generating a predetermined key (fig. 7, ref. num S405).

Harada et al. does not teach the scrambling technique is file format manipulation.

Allen teaches the scrambling technique is file format manipulation (col. 5, lines 58-65).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the scrambling technique is file format manipulation, as taught by Allen, with the method of Harada et al. It would have been obvious to combine the scrambling technique is file format manipulation, as taught by Allen, with the method of Harada et al. because the file format manipulation is dependent on the type of file being encrypted and therefore can be different for transmitting different file types using the same algorithm. This provides more security because even if a third party decrypted the audio file, the video file will still remain encrypted.

Regarding claim 50, the combination of Harada et al. in view of Allen teaches the file format manipulation scrambling technique has a relationship with at least one signal characteristic of the data signal (see col. 5, lines 58-65 of Allen, audio files are encrypted differently than a video file and differently than a graphics file, etc.).

Regarding claim 51, the combination of Harada et al. in view of Allen teaches the partial encryption scrambling technique is unrelated to any characteristic of the data signal (see col. 9, lines 53-64 of Harada et al.).

Regarding claim 52, the combination of Harada et al. in view of Allen teaches the partial encryption scrambling technique degrades a signal quality of the data signal (see col. 5, lines 58-65 of Allen).

Regarding claim 53, the combination of Harada et al. in view of Allen teaches the predetermined key enables descrambling of the signal (see col. 17, lines 48-52 of Harada et al.).

Regarding claim 54, the combination of Harada et al. in view of Allen teaches the predetermined key is based on unique identifying information for a receiver (see fig. 7, ref. num S404 of Harada et al.).

Regarding claim 57, the combination of Harada et al. in view of Allen teaches the predetermined key is pre-generated based on at least one expected characteristic of the data signal (the Examiner takes Official Notice that this is an obvious step to provide keys to the decrypting device in advance to prevent leakage of the keys by a third party).

Regarding claim 58, the combination of Harada et al. in view of Allen teaches the predetermined key is divisible into a plurality of discrete partial keys, each discrete partial key representing less than an entire payment for the data signal (see col. 21, lines 19-41 of Harada et al.).

Regarding claim 59, the combination of Harada et al. in view of Allen teaches the predetermined key can be broken into a plurality of discrete partial keys, each discrete partial key representing less than an entire descrambled state for the data signal (see col. 21, lines 19-41 of Harada et al.).

Regarding claim 61, Harada et al. teaches all the limitations of claim 60, above. However, Harada et al. does not teach the first data object comprises advertising.

Allen teaches the first data object comprises advertising (col. 14, lines 31-44).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the first data object comprises advertising, as taught by Allen, with the method of Harada et al. It would have been obvious to combine the first data object comprises advertising, as taught by Allen, with the method of Harada et al. because advertising allows additional revenue to be paid to the provider of the services, thereby enabling the provider of services to lower costs.

Claims 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (U.S. Patent No. 6,687,683) in view of Allen (U.S. Patent No. 5,418,713), and further in view of Ichien et al. (U.S. Patent No. 6,373,892).

Regarding claims 55 and 56, the combination of Harada et al. in view of Allen teaches all the limitations of claim 49, above. However, the combination of Harada et al./Allen does not teach the predetermined key is based on a signal quality threshold that is adjustable in at least one of a time, a frequency, a bit depth, and a measure of payment that may be adjusted for at least one of a time, a frequency, and a bit depth.

Ichien et al. teaches the predetermined key is based on a signal quality threshold that is adjustable in at least one of a time, a frequency, a bit depth, and a measure of payment that may be adjusted for at least one of a time, a frequency, and a bit depth (col. 6, lines 34-51).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the predetermined key is based on a signal quality threshold that is adjustable in a time, frequency, bit depth, or measure of payment and may be adjusted in one of the time, frequency, or bit depth, as taught by Ichien et al., with the method of Harada et al./Allen. It would have been obvious to combine the predetermined key is based on a signal quality threshold that is adjustable in a time, frequency, bit depth, or measure of payment and may be adjusted in one of the time, frequency, or bit depth, as taught by Ichien et al., with the method of Harada et al./Allen because the threshold of signal quality specifies whether to use one key, that would charge a higher cost, or another key, that would charge a lower cost. The ability to change the threshold allows the creator to alter the point at which a user would pay a higher fee for a certain quality signal.

Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (U.S. Patent No. 6,687,683).

Regarding claim 62, Harada et al. teaches all the limitations of claim 60, above. However, Harada et al. does not specifically teach an increased quantity of the first data object causes a signal quality level of the second data object to increase.

Harada et al. teaches an increased quantity of the first data object causes a signal quality level of the second data object to increase (col. 14, lines 9-46, the Examiner treats the increased quantity of the first data object as an increased amount of money for the first data object will cause the signal quality of the second data object, the full audio file, to increase).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an increased quantity of the first data object causes a signal quality level of the second data object to increase with the method of Harada et al. It would have been obvious to combine an increased quantity of the first data object causes a signal quality level of the second data object to increase with the method of Harada et al. because providing more of an enriched content to a user as they pay more would create revenue for the provider for even the lowest of qualities. This allows a user who wishes not to pay a full amount to be able to preview the content in hopes that the preview will entice the user to buy more.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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